

CLAIMS

Sub A

Thermoplastic compositions comprising:

- A 5 -40 to 97 parts of a thermoplastic polymer (M) forming a matrix,
chosen from polyamides, polyamide block copolymers, fluoro polymers,
polycarbonate, styrene resins, PMMA, thermoplastic polyurethanes (TPU),
copolymers containing polyester blocks and polyether blocks,
polycarbonate-polyester alloys, polyketones, PVC and ethylene-vinyl
alcohol copolymers (EVOH),
- A 10 -60 to 3 parts of (B) comprising:
 either an ethylene-alkyl (meth)acrylate copolymer (B1), the
 alkyl having at least 5 carbon atoms, which copolymer (B1) carries a
 functional group
 or a blend of an ethylene-alkyl (meth)acrylate copolymer
- A 15 (B2), the alkyl having at least 5 carbon atoms, which copolymer (B2)
 does not carry a functional group, and of an impact modifier which
 carries a functional group.

A

2 Compositions according to Claim 1, *in which* the functional

- A 20 group of (B1) and of the impact modifier is *chosen from carboxylic acids*
and their derivatives, acid chlorides, isocyanates, oxazolines, epoxides,
amines and hydroxides.

Sub A

- A 25 3 Compositions according to *either of the preceding claims, in*
which the alkyl of the alkyl (meth)acrylate of (B1) and (B2) has from 5 to 20
 carbon atoms *and is preferably 2-ethylhexyl acrylate.*

Sub D1

- A 30 4 Compositions according to *any one of the preceding claims;*
in which the impact modifier is an ethylene/alkyl (meth)acrylate/maleic
 anhydride copolymer.

Sub A2 A

5 Compositions according to ~~any one of the preceding claims,~~
~~in which advantageously the proportion of (B) is from 5 to 35 parts per 95~~
~~to 65 parts of (M) and preferably 15 to 25 parts per 85 to 75 parts of (M).~~
Claim 1, wherein

A 5 A

6 Compositions according to ~~any one of the preceding claims,~~
~~in which (B) also comprises ethylene/alkyl (meth)acrylate copolymers.~~
Claim 1, wherein

A A

7 Compositions according to ~~any one of the preceding claims,~~
~~in which (B) also comprises a functionalized polymer (C1) or a difunctional~~
~~reactive agent (C2) so as to form a crosslinked dispersed phase in the~~
~~matrix (M).~~
Claim 1, wherein

A

8 Compositions according to Claim 7, ~~in which~~ *wherein* the crosslinking
of the dispersed phase results from the reaction between an anhydride
functional group and an epoxy functional group.

A

9 Compositions according to Claim 8, ~~in which~~ *wherein* part of one of
the polymers carrying anhydride functional groups is partly replaced with a
polymer carrying acid functional groups.

A

10 Compositions according to ~~any one of Claims 1 to 6, which~~
comprise: *Claim 1, comprising*

- 40 to 97 parts of (M),
- 60 to 3 parts of a dispersed phase comprising:

 - 0 to 30 parts of a thermoplastic polymer (D) that differs from
(M) and is not very compatible with (M) and
 - 3 to 30 parts of (B),

(D) being completely or partly encapsulated in (B).

A

11 Compositions according to Claim 10, ~~in which (D) is chosen~~
wherein (D) is selected from polyamides, polyamide block copolymers, fluoro polymers,
polycarbonate, styrene resins, PMMA, thermoplastic polyurethanes (TPU),
copolymers containing polyester blocks and polyether blocks,

~~20~~
polycarbonate/polyester alloys, polyketones, PVC and ethylene-vinyl
alcohol copolymers (EVOH) and polyesters such as PET, PBT and PEN.

~~add 15~~

~~A₁₀₀
B₃~~